REMARKS/ARGUMENTS

The Office Action mailed November 20, 2008 has been received and the Examiner's comments carefully reviewed. Claims 2-11 and 44-53 were rejected. Claims 2, 44 and 50 have been amended. For at least the following reasons, Applicants respectfully submit that the pending claims are in condition for allowance.

Claim Rejections Under 35 U.S.C. 103

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable by Cameron (US 2002/0051499). Claims 2-6, 8-9, 44-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaiser (US 6,060,996) in view of Cameron (US 2002/0051499). Claims 7, 10-11, 47-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaiser in view of Cameron and further in view of Chadwick (US 5,168,271). Applicants respectfully disagree but have amended the claims to clarify the claimed invention.

As amended, Claim 2 recites in part "a packet assembler coupled to said first encoder and to the first interface through the second encoder such that the packet assembler receives input from the first encoder when transmitting at a first transmission speed and the packet assembler receives input from the first interface through the second encoder when transmitting at a second transmission speed, such that first encoder is bypassed when transmitting at the second transmission speed; wherein the packet assembler interleaves a first portion of the input received and a second portion of the input received over a broadcast frame that includes sub frames; wherein the first portion is for transmission at a first latency and the second portion is for transmission at a second latency, the second latency being lower than the first latency; and wherein each sub frame includes data associated with the first portion and data associated with the second portion that are interleaved together." In contrast, none of the cited references teach interleaving data after it is encoded by a turbo encoder or data interleaved into frames and subframes.

Cameron teaches an interleaver that interleaves received message tuples. (Cameron, Par. 70-71). The interleaved bits are then provided to a turbo encoder. (Cameron, Par. 70-71). In some examples, the encoder is bypassed such that some interleaved bits are encoded and some interleaved bits bypass the encoder. (Cameron, Par. 70-71). Thus, Cameron

teaches that interleaved bits are received as input to the encoder. The encoder then selectively encodes the interleaved bits.

Cameron does not teach first encoding bits at an encoder that is selectively bypassed. Cameron dose not teach that after bits are selectively encoded, such selectively encoded bits are then interleaved. In fact, Cameron teaches the reverse process: selectively encoding interleaved bits. Thus, Cameron does not teach interleaving the locally formatted data that includes data encoded at the data encoder when retransmitting using the first transmission speed and data encoded through bypassing the data encoder when retransmitting using the second transmission speed.

In addition, none of the cited references makes any teaching or suggestion of interleaving within frames or sub frames. For example, none of the cited reference teach two latencies that are interleaved together. Further, none of the cited references teach that each sub frame includes data of each latency.

Since none of the cited references teach a packet assembler coupled to said first encoder and to the first interface through the second encoder such that the packet assembler receives input from the first encoder when transmitting at a first transmission speed and the packet assembler receives input from the first interface through the second encoder when transmitting at a second transmission speed, such that first encoder is bypassed when transmitting at the second transmission speed; wherein the packet assembler interleaves a first portion of the input received and a second portion of the input received over a broadcast frame that includes sub frames; wherein the first portion is for transmission at a first latency and the second portion is for transmission at a second latency, the second latency being lower than the first latency; and wherein each sub frame includes data associated with the first portion and data associated with the second portion that are interleaved together, Claim 2 is proposed to be allowable. Claims 3-11 are proposed to be allowable as they depend from an allowable base claim.

As amended, Claim 44 recites in part "means for assembling packets from data provided by the means for encoding system information when transmitting at a first transmission speed and from data provided by the means for encoding data when transmitting at a second transmission speed, such that the means for encoding data is bypassed when

transmitting at a second transmission speed; wherein the means for assembling packets interleaves a first portion of input data and a second portion of the input data over a broadcast frame that includes sub frames; wherein the first portion is for transmission at a first latency and the second portion is for transmission at a second latency, the second latency being lower than the first latency; and wherein each sub frame includes data associated with the first portion and data associated with the second portion that are interleaved together." For at least the reasons presented above, Claim 44 is proposed to be allowable. Claims 45-49 are proposed to be allowable as they depend from an allowable base claim.

As amended, Claim 50 recites in part "an assembler that is coupled to the first encoder and to the interface through the second encoder such that the assembler receives input from the first encoder when transmitting at a first transmission speed and the assembler receives input from the interface through the second encoder when transmitting at a second transmission speed, wherein the assembler is arranged to interleave the received input into data segments, add correlation information to the data segments, and convert the data segments into a bit stream; wherein interleave the received input into data segments includes interleaving a first portion of the input received and a second portion of the input received over a broadcast frame that includes sub frames; wherein the first portion is for transmission at a first latency and the second portion is for transmission at a second latency, the second latency being lower than the first latency; and wherein each sub frame includes data associated with the first portion and data associated with the second portion that are interleaved together." For at least the reasons presented above, Claim 50 is proposed to be allowable. Claims 51-53 are proposed to be allowable as they depend from an allowable base claim.

Conclusion

In view of the foregoing amendments and remarks, all pending claims are believed to be allowable and the application is in condition for allowance. Therefore, a Notice of Allowance is respectfully requested. Should the Examiner have any further issues regarding this application,

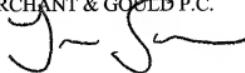the Examiner is requested to contact the undersigned attorney for the applicants at the telephone number provided below.

Respectfully submitted,

MERCHANT & GOULD P.C.

P.O. Box 2903
Minneapolis, MN 55402-0903
206.342.6200

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Timothy P. Sullivan
Reg. No. 47,981
Direct Dial 206.342.6254

> **27488**
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